

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A device for secure transmission respectively forwarding of coded data from a first data station via a second data station to a third data station of a network, ~~having~~ comprising

– an input unit for receiving said coded data ~~(10a)~~ from said first data station and for receiving a requester's and an external key from said third data station or a further data station;

– a unit ~~(2)~~ for ~~decoding~~ recoding said coded data by means of decoding with an internal key and ~~recoding said data renewed encoding~~ with said external key, with said internal key not being accessible from outside said device; and

– an output unit for issuing said data ~~(10b)~~ encoded with said external key;  
wherein said device is designed in such a manner on or in said second data station that said unit for recoding recodes said data only upon request by said third data station with aid of said requester's external key and said data are not accessible in decoded form on said second data station from outside said device.

2. (Currently Amended) A The device according to claim 1, wherein said internal key is stored on a suited data carrier inside said unit ~~(2)~~ for recoding ~~decoding and encoding~~.

3. (Currently Amended) A The device according to claim 1 ~~or 2~~, wherein said unit ~~(2)~~ for recoding ~~decoding and encoding~~ comprises a chip card as ~~said a~~ carrier of said internal key.

4. (Currently Amended) A The device according to claim 1 ~~or 2~~, wherein said unit ~~(2)~~ for recoding ~~decoding and encoding~~ comprises an active chip card with an integrated processor, which partly or completely assumes ~~the~~ decoding and encoding of said data.

5. (Currently Amended) A The device according to one of ~~the~~ claims 1 to 4, ~~wherein said device is provided with~~ further comprising a buffer and logic unit ~~(4)~~ for temporal control of ~~the~~ data flow in said device, said buffer and logic unit ~~(4)~~ first conveys said coded data ~~(10a)~~ for decoding to said unit ~~(2)~~ for recoding ~~decoding and encoding~~ and receives said data back decoded, and said buffer and logic unit ~~(4)~~ subsequently conveys said decoded data for encoding with said external key to said unit ~~(2)~~ for

~~recoding~~ ~~decoding and encoding~~ and receives ~~it~~ said data back as coded data ~~(10b)~~.

6. (Currently Amended) ~~A~~ The device according to one of ~~the~~ claims 1 to 5 4, wherein said input unit and said output unit are provided with standard interfaces for ~~the~~ input and output of said data.

7. (Currently Amended) ~~A~~ The device according to one of ~~the~~ claims 1 to 6 4, wherein said unit ~~(2)~~ for recoding ~~encoding and decoding~~ utilizes asymmetrical encoding processes.

8. (Currently Amended) ~~A~~ The device according to one of ~~the~~ claims 1 to 7 4, ~~wherein said device is provided with~~ further comprising a complete mechanical and electromagnetic encapsulation ~~(5)~~ and with a possibility of sealing.

9. (Currently Amended) ~~A~~ The device according to one of ~~the~~ claims 1 to 8 4, ~~wherein~~ further comprising a buffer unit ~~is provided~~ which buffers all ~~the~~ data flows inside said device to compensate for possible internal-key-dependent processing times so that ~~the~~ data output of said device occurs according to a process-independent time span.

10. (Currently Amended) ~~A~~ The device according to one of ~~the~~ claims 1 to 9 4, ~~wherein~~ further comprising a unit

~~(3) is provided~~ for buffering ~~the~~ current input of said device in such a manner that said current input of said device is independent of ~~the~~ current input of said unit ~~(2)~~ for recoding ~~decoding and encoding~~, which is dependent on said internal key, or of other internal circuits.

11. (Currently Amended) A ~~The~~ device according to one of ~~the~~ claims 1 to ~~10~~ 4, ~~which is~~ further comprising ~~provided with~~ a unit for receiving a first data block containing said coded data ~~(10a)~~ in addition to further data ~~(11)~~ and for separating said coded data ~~(10a)~~ from said further data ~~(11)~~ and with a unit for joining said further data ~~(11)~~ with ~~the~~ recoded data ~~(10b)~~ to a second data block and for ~~the~~ output of said second data block, with ~~said~~ encoded data representing a key with which said further data ~~(11)~~ are encoded.

12. (Currently Amended) A process for secure data transmission of data from a first data station via a second data station to a third data station using the device according to ~~one of the preceding claims~~ claim 1, on or in said second data station, having the following comprising steps of:

– encoding the data in said first data station with a first key;

- dividing said first key into a first part and a second part in such a manner that neither said first part nor said second part alone permit decoding the coded data;

~~- encoding of at least a part of~~ said first part of said first key in said first data station with a public key of said second data station;

~~- transmission of~~ transmitting said coded data ~~(11)~~ together with said coded first part of said first key ~~(10a)~~ to said second data station;

~~- storage of~~ storing said coded data ~~(11)~~ and ~~of~~ said coded part of said first key ~~(10a)~~ in said second data station;

~~- request of~~ requesting said data by said third data station, identity of which is not conveyed to said second data station until requested;

~~- decoding of~~ said coded part of said first key with a private key of said second data station matching said public key and recoding ~~of the~~ a previously decoded part of said first key with a public key of said third data station; ~~and~~

~~- transmission of~~ transmitting said coded data ~~(11)~~ together with said recoded first part of said first key ~~(10b)~~ to said third data station;

- decoding said coded first part of said first key in said third station with a private key matching said public key of said third station;

- completing said first key in said third data station by adding said first part to said second part of said first key which was transmitted on a separate path from said first data station to said third data station; and

- decoding said coded data with said complete first key in said third data station.

13. (Currently Amended) A The process according to claim 12, ~~whereby~~ wherein said first key is completely encoded and transmitted.

14. (Currently Amended) A The process according to claim 12, ~~whereby~~ wherein only a part of said first key is encoded and transmitted to said second data station.

15. (Currently Amended) A The process according to one of ~~the~~ claims 12 to 14, ~~whereby~~ wherein said coded part of said first key is decoded in said third data station with said private key of said third station and subsequently said data ~~(11)~~ are decoded with said first key.

16. (Currently Amended) A The process according to one of ~~the~~ claims 12 to ~~15~~ 14, ~~whereby~~ wherein said public key of said third data station is taken from an internal

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data bank of said second data station or is determined by  
consultation with a trust center.